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ERNEST K. HIRATA & ASSOCIATES, INC.

Soils and Foundation Engineering

No. 66

ERNEST K. HIRATA P.E.
PAUL S. MORIMOTO P.E.
JUNG K. KIM P.E.
DAVID M. KITAMURA P.E.

905 Makahiki Way, Makai Suite • Honolulu, Hawaii 96826-2899 • Phone (808) 941-5055

FOR REFERENCE

not to be taken from this room

S.R.: 66

March 25, 1987
W.O. 81-711A

Darrell Mattos & Associates, Inc.
600 Kapiolani Blvd., Suite 206
Honolulu, Hawaii 96813

Attention: Mr. Darrell Mattos

Subject: Compaction Test Results
Waikane Residential Subdivision
Waikane, Oahu, Hawaii
TMK: 4-8-03: 7, 8 & 9

Gentlemen:

Submitted herewith is a summary of our compaction test results for the above referenced project. Tests were taken upon requests by field personnel of Hercules Construction Co. Inc., site work contractor. The purpose of the testing was to determine that fill placed in the test area was compacted in accordance with our recommendations. The field density test results are presented in Table I.

The maximum density and optimum moisture content of each soil type utilized were determined in accordance with ASTM D 1557-78. Field density tests were performed in accordance with the Sand Cone Method, ASTM D 1556-64.

Should you have any questions, please call on us.

Respectfully submitted,

Ernest K. Hirata & Associates, Inc.


Jung K. Kim, P.E.

JKK:yk

Encl: Table I

cc: Windward Partners

MUNICIPAL REFERENCE & RECORDS CENTER
City & County of Honolulu
City Hall Annex, 558 S. King Street
Honolulu, Hawaii 96813

DENSITY TEST RESULTS

TABLE I

<u>Date</u>	<u>Test No.</u>	<u>Lot No.</u>	<u>Elev.</u>	<u>Dry Density</u>	<u>Proctor (PCF)</u>	<u>Percent Compaction</u>	<u>Comments</u>
12-11-81	D1	3	17.3	79.6	79.0	100+	
	D2	3	25.0	88.0	87.5	"	
	D3	Driveway	20.0	72.7	79.0	92.0	
	D4	1	23.8	84.3	87.5	96.3	
	D5	2	15.0	74.3	79.0	94.1	
12-18-81	D6	3	25.1	87.5	87.5	100+	
	D7	3	21.0	90.2	"	"	
	D8	4	31.2	83.6	"	95.5	
	D9	4	30.0	84.1	"	96.1	
	D10	5	35.9	81.5	"	93.2	
	D11	1	25.4	80.8	79.0	100+	
	D12	1	17.7	78.5	"	99.4	
04-26-82	D13	1	17.8	77.0	85.5	90.1	
	D14	2	17.0	65.3	"	76.4	Failed; See D16
	D15	3	16.1	62.7	"	73.3	Failed; See D17
	D16	2	17.0	70.2	"	82.1	Failed; See D18
	D17	3	16.1	69.8	"	81.6	Failed; See D19
04-30-82	D18	2	17.0	65.5	"	76.7	Failed; See D28
	D19	3	16.1	68.6	"	80.3	Failed; See D25
	D20	3	16.7	70.3	"	82.3	Failed; See D24
	D21	3	24.3	70.7	"	82.7	Failed; See D23
	D22	2	20.3	69.6	"	81.4	Failed; See D41
05-05-82	D23	3	24.3	73.9	"	86.4	Failed; See D27
	D24	3	16.7	73.6	"	86.1	Failed; See D26
05-10-82	D25	3	16.1	78.6	"	91.9	Retest D19
	D26	3	16.7	78.4	"	91.7	Retest D24
	D27	3	24.3	77.0	"	90.1	Retest D27
	D28	2	17.0	77.5	"	90.6	Retest D18
	D29	1	18.4	77.2	"	90.3	
05-12-82	D30	3	29.5	66.2	"	77.4	Failed; See D39
	D31	3	19.5	65.2	"	76.3	Failed; See D38
	D32	2	22.6	67.7	"	79.2	Failed; See D37
	D33	2	17.5	67.3	"	78.7	Failed; See D36
	D34	1	24.2	67.7	"	79.2	Failed; See D35

DENSITY TEST RESULTS

TABLE I

<u>Date</u>	<u>Test No.</u>	<u>Lot No.</u>	<u>Elev.</u>	<u>Dry Density</u>	<u>Proctor (PCF)</u>	<u>Percent Compaction</u>	<u>Comments</u>
05-14-82	D35	1	24.2	77.1	85.5	90.2	Retest D34
	D36	2	17.5	77.7	"	90.8	Retest D33
	D37	2	22.6	77.9	"	91.1	Retest D32
	D38	3	19.5	76.7	"	90.0	Retest D31
	D39	3	29.5	78.0	"	91.2	Retest D30
05-20-82	D40	2	16.6	79.0	"	92.4	Retest D22
	D41	2	20.3	80.9	"	94.6	
	D42	3	23.2	83.6	"	97.8	
05-21-82	D43	1	22.0	77.1	"	90.2	
	D44	2	24.2	77.8	"	91.0	
	D45	3	21.7	78.1	"	91.4	
05-26-82	D46	2	23.2	77.0	"	90.1	
	D47	3	29.1	77.1	"	90.2	
	D48	3	33.1	77.2	"	90.3	
	D49	1	20.1	77.1	"	90.2	
05-27-82	D50	1	22.9	77.0	"	90.1	
	D51	2	28.1	77.2	"	90.3	
05-28-82	D52	2	24.1	76.9	"	90.0	
	D53	3	27.8	77.4	"	90.5	
	D54	3	32.4	77.7	"	90.8	
	D55	1	25.7	"	"	"	
	D56	1	20.7	76.9	"	90.0	
	D57	1	17.3	77.5	"	90.6	
06-01-82	D58	3	28.5	78.3	"	91.5	
	D59	3	19.5	78.0	"	91.2	
06-02-82	D60	1	29.9	77.6	"	90.8	
	D61	2	27.1	77.3	"	90.4	
06-03-82	D62	3	28.2	76.9	"	90.0	
	D63	3	36.0	77.2	"	90.3	
	D64	1	18.0	77.4	"	90.6	
06-14-82	D65	1	28.4	80.2	"	93.9	

DENSITY TEST RESULTS

TABLE I

<u>Date</u>	<u>Test No.</u>	<u>Lot No.</u>	<u>Elev.</u>	<u>Dry Density</u>	<u>Proctor (PCF)</u>	<u>Percent Compaction</u>	<u>Comments</u>
06-14-82	D66	2	29.1	77.7	85.5	90.8	
06-24-82	D67	3	32.1	77.9	"	91.1	
	D68	4	39.1	79.2	"	92.6	
08-05-82	D69	2	24.4	78.8	"	91.1	
	D70	1	27.2	78.4	"	91.7	
08-06-82	D71	3	26.4	66.0	"	77.2	Failed; See D73
	D72	1	31.0	69.9	"	81.8	Failed; See D74
08-13-82	D73	3	26.4	77.0	"	90.0	Retest D71
	D74	1	31.0	76.9	"	90.0	Retest D72
09-13-82	D75	3	29.0	117.1	116.0	100+	
	D76	2	26.5	104.9	"	90.4	
	D77	1	27.1	107.1	"	92.3	
09-14-82	D78	2	28.9	107.5	"	92.7	
	D79	1	27.1	106.4	"	91.7	
09-16-82	D80	2	29.5	77.5	85.5	90.6	
	D81	3	31.0	77.6	"	90.8	
09-17-82	D82	1	27.7	78.0	"	91.2	
	D83	4	31.4	82.5	"	96.5	
09-23-82	D84	1	31.5	77.7	"	90.8	
	D85	2	31.5	77.6	"	90.7	
	D86	3	31.0	80.5	"	94.1	
09-24-82	D87	2	30.6	80.0	"	93.6	
	D88	1	29.7	81.2	"	95.0	
09-28-82	D89	4	32.5	133.2	138.0	96.5	
	D90	3	30.8	135.8	"	98.4	
	D91	1	30.1	142.0	"	100+	
	D92	2	30.8	139.9	"	"	
	D93	4	34.2	145.9	"	"	

DENSITY TEST RESULTS

TABLE I

<u>Date</u>	<u>Test No.</u>	<u>Lot No.</u>	<u>Elev.</u>	<u>Dry Density</u>	<u>Proctor (PCF)</u>	<u>Percent Compaction</u>	<u>Comments</u>
09-29-82	D94	1	30.7	145.7	138.0	100+	
	D95	2	31.2	131.1	"	95.0	
	D96	3	31.6	142.9	"	100+	
	D97	4	34.1	140.4	"	"	
09-30-82	D98	1	31.9	143.2	"	"	
	D99	2	30.7	146.6	"	"	
	D100	1	19.3	80.5	85.5	94.2	
	D101	1	21.8	83.7	"	97.9	
10-01-82	D102	1	22.3	148.5	138.0	100+	
	D103	2	22.6	140.0	"	"	
10-05-82	D104	1	10.0	139.4	"	"	
	D105	1	9.9	138.9	"	"	
	D106	1	8.2	140.1	"	"	
10-14-82	D107	Driveway	31.7	133.9	"	97.0	
10-25-82	D108	4	34.8	138.3	"	100+	
	D109	3	32.1	143.1	"	"	
	D110	Driveway	32.4	133.8	"	96.9	
	D111	1	20.1	131.0	"	94.9	

HERCULES CONSTRUCTION CO., INC.

General Contractors



94-163 LEOWAENA STREET
WAIPAHU, HAWAII 96797
Telephone: 671-1741

October 8, 1981

Division of Engineering
Dept. of Public Works
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

Subject: Waikane Residential Lots
Waikane, Koolaupoko, Oahu, Hawaii
TMK 4-8-03:7, 8 & 9

Gentlemen:

Pleased be advised that we are entering into a contract agreement with Windward Partners to do the site work for the subject project. It is our intent to commence clearing and grubbing work on October 19, 1981, contingent to our securing of a grading permit prior to that date.

If any further information is required, please advise.

Very truly yours,

HERCULES CONSTRUCTION CO., INC.

Calvin H. Mimaki

Calvin H. Mimaki
Estimator

CHM:cc

NO. 11DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

181 X1438

To the Director and Chief Engineer
Department of Public Works
City and County of Honolulu

APPLICATION AND PERMIT FOR

10/14/81 T#0011 TRAN 012381

RCT# 016070 C#1

\$127.50

GRADING

Application is hereby made to do grading work in conformity with Chapter 23, R. O. 1978, As Amended, as follows:

TAX MAP KEY					ENG. SOILS REPORT	EST. QUANTITY	PERMIT FEE	FEE RECEIVED
ZONE	SEC.	PLAT	PAR.	LOT	DATE FILED:	EXCAV. CU.YD.		
4	8	03	7,8,9			1,220	\$	\$127.50
						FILL CU.YD.	\$127.50	BY: <u>Cheryl D. Agana</u>
						7,939		DATE: 10-14-81

Located at Waikane Residential LotsWaikane, KoolaupokoLot Area _____ Sq. Ft. 1.4 AcresFill Material brown soil

Description of Soil

Existing Ground _____

☒ Temporary Erosion Control on plans

Procedures on File

☒ Bond on file 901946 - Seaboard☒ Dept. of Public Works to Inspect☐ Bldg. Dept. to InspectEstimated Starting Date Oct. 14 1981 Estimated Completion Date May 1 1982Remarks/Purpose of Work: grading of site Borrow site - KapaaOwner Windward Partners Address 436 Piikoi St. Phone 537-5369Engineer Yasuo Arakaki Address #654 Phone 533-7848Contractor Hercules Constr. Co. Address 94-163 Leowaeng St. Phone 671-1741Date of Application Oct 14 1981 Permittee Calvin Thumak
Hercules Constr. - Letter of Auth.Application Reviewed By _____ Date _____ 19____
SERVICE ENGINEER

To the Applicant:

Permission is hereby given to do the above work according to the conditions hereon and according to the approved plans and specifications pertaining thereto, subject to compliance with Chapter 23, R. O. 1978, As Amended.

Remarks: Permit Expired - Work Completed - No final soils report andDate October 14 1981Issued By: GRADING CERTIFICATIONContractor shall notify this office **two working days** before commencing any work and arrange for necessary inspectional services.Cheryl D. Agana
FOR DIRECTOR AND CHIEF ENGINEER, DEPT. OF PUBLIC WORKS**THIS PERMIT WILL EXPIRE UNLESS WORK IS STARTED WITHIN 90 DAYS FROM DATE OF ISSUE; OR IF WORK IS SUSPENDED OR ABANDONED FOR 60 DAYS OR MORE AFTER WORK IS BEGUN; OR ONE YEAR FROM DATE OF ISSUE**

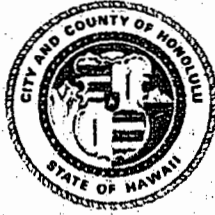
I hereby certify that all work as requested above has been completed in conformity with Chapter 23, R. O. 1978, As Amended and in accordance with the approved plans and specifications.

Date 11/10/81 1981 Permittee Hercules Construction Co. Inc.Date 3/27 1987 Approved By: V. Nakamura

Final Soils Report _____ Date Filed _____ 19____

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
Mayor

~~RUSSELL L. SMITH, JR.~~
DIRECTOR AND CHIEF ENGINEER

21-0185

March 5, 1987

DARRELL MATTOS & ASSOCIATES, INC.

~~Windward Partners
c/o Walter Clarke Realty
600 Kapiolani Blvd., Suite 206
Honolulu, Hawaii 96813~~

Gentlemen:

Subject: Waikane Residential Lots
TMK: 4-8-03: 7, 8, and 9

In our letters to you, dated December 4, 1985, September 30, 1986, and December 2, 1986, we had informed you that the work under Grading Permit No. 11 had been completed on October 14, 1982 and had requested that your engineer submit the final soils report necessary to close the permit. The soils report has not been submitted to date.

Please have your engineer submit the final soils report by March 31, 1987 so that Grading Permit No. 11 can be closed.

Very truly yours,

Alfred J. Thiede
ALFRED J. THIEDE
Director and Chief Engineer

cc: Hercules Construction Co., Inc.
Yasuo Arakaki
Seaboard Surety Co.

3/11/87

RECEIVED
DIV. OF ENGINEERING

OCT 14 10 06 AM '86

YASUO ARAKAKI
CONSULTING ENGINEER
914 ALA MOANA BOULEVARD
HONOLULU, HAWAII 96814

SR-66

869476

ENVR

GP 11

October 10, 1986

Mr. Russell L. Smith, Jr.
Director and Chief Engineer
Department of Public Works
City and County of Honolulu

Dear Mr. Smith:

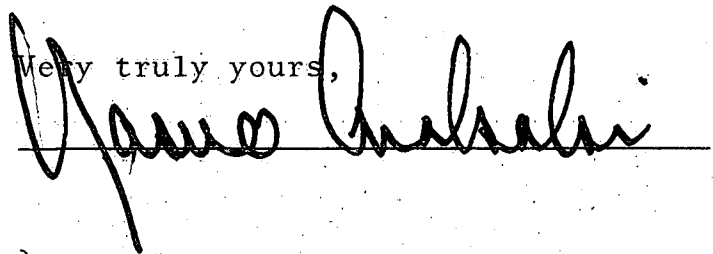
Subject: Waikane Residential Lots
TMK: 4-8-03:7, 8 and 9

This is to inform you that the work under Grading Permit No. 11 was substantially completed in accordance to the requirements of the approved Grading Plan, except as noted below.

A Soils Report on the completed grading work, is yet to be received by this office, from Ernest K. Hirata & Associates, Inc., the Soils Engineer for the project.

Until such a report is received, I am in no position to state that soil compaction and possibly other features of the grading work are satisfactory.

Very truly yours,

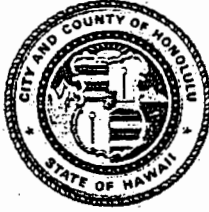


cc. Windward Partners
(Darrell W. Mattos & Assoc.)

RECEIVED
DEPT. OF PUBLIC WORKS
OCT 14 8 28 AM '86

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
MAYOR

RUSSELL L. SMITH, JR.
DIRECTOR AND CHIEF ENGINEER

21-0530

September 30, 1986

Windward Partners
4363 B Piikoi Street
Honolulu, Hawaii 96814

Gentlemen:

Subject: Windward Residential Lots
TMK: 4-8-03: 7, 8, and 9

In our letter to you, dated December 4, 1985, we had informed you that the work under Grading Permit No. 11 had been completed on October 14, 1982 and had requested that your engineer submit the final soils report and grading certification necessary to close the permit. These documents have not been submitted to date.

Please have your engineer submit the final soils report and grading certification by October 10, 1986 so that Grading Permit No. 11 can be closed.

Very truly yours,

RUSSELL L. SMITH, JR.
Director and Chief Engineer

~~WY~~W:ft

cc: Hercules Construction Co., Inc.
Yasuo Arakaki
Seaboard Surety Co.
bcc: East Dist. Inspection
Service Engineer

21-0673

December 2, 1986

Windward Partners
4363 B Piikoi Street
Honolulu, Hawaii 96814

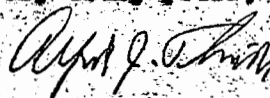
Gentlemen:

Subject: Waikane Residential Lots
TRK: 4-2-03: 7, 8, and 9

In our letters to you, dated December 4, 1985 and September 30, 1986, we had informed you that the work under Grading Permit No. 11 had been completed on October 14, 1982 and had requested that your engineer submit the final soils report and grading certification necessary to close the permit. Only the grading certification has been submitted to date.

Please have your engineer submit the final soils report by December 12, 1986 so that Grading Permit No. 11 can be closed.

Very truly yours,



For RUSSELL L. SMITH, JR.
Director and Chief Engineer

WTS:gtc

cc: Marcus Construction Co., Inc.
Yasuo Arakaki
Seaboard Surety Co.
bcc: East District Inspection
Service Engineer

21-0673

December 2, 1986

Windward Partners
4363 B Piikoi Street
Honolulu, Hawaii 96814

*cf Wilton Clarke Realty
600 Kapiolani Blvd, Ste 206
Hon. HF 96813*

Gentlemen:

Subject: Waikane Residential Lots
TRK: 4-S-03: 7, 8, and 9

In our letters to you, dated December 4, 1985 and September 30, 1986, we had informed you that the work under Grading Permit No. 11 had been completed on October 14, 1982 and had requested that your engineer submit the final soils report and grading certification necessary to close the permit. Only the grading certification has been submitted to date.

Please have your engineer submit the final soils report by December 12, 1986 so that Grading Permit No. 11 can be closed.

Very truly yours,

Russell L. Smith, Jr.
For RUSSELL L. SMITH, JR.
Director and Chief Engineer

WTS:gle

cc: Hercules Construction Co., Inc.
Yasuo Arakaki
Seaboard Surety Co.
bcc: East District Inspection
Service Engineer

21-6185

March 5, 1987

Windward Partners
c/o Walter Clarke Realty
608 Kapiolani Blvd., Suite 206
Honolulu, Hawaii 96813

Gentlemen:

Subject: Waikane Residential Lots
TMK: 4-6-03: 7, 8, and 9

In our letters to you, dated December 4, 1985, September 30, 1986, and December 2, 1986, we had informed you that the work under Grading Permit No. 11 had been completed on October 14, 1987 and had requested that your engineer submit the final soils report necessary to close the permit. The soils report has not been submitted to date.

Please have your engineer submit the final soils report by March 31, 1987 so that Grading Permit No. 11 can be closed.

Very truly yours,

Alfred J. Thiede

For ALFRED J. THIEDE
Director and Chief Engineer

WJW:ft

cc: Hercules Construction Co., Inc.
Yasuo Arakaki
Seaboard Surety Co.
bcc: East District Inspection
Service Engineer
Control Section

301-21-0057

February 4, 1983

Windward Partners
Second Floor
436 B Piikoi Street
Honolulu, Hawaii 96814

Gentlemen:

Subject: Waikane Residential Lots
TMK: 4-8-03: 7, 8, and 9

The work under Grading Permit No. 11 was completed on January 10, 1983, and the permit expired on October 14, 1982. Please have your engineer submit the final soils report and grading certification necessary to close the permit. The bond filed with the City will remain in effect for a period of one year after our approval.

Me ke aloha pumehana,



MICHAEL J. CHUN
Director and Chief Engineer

HY:gc

cc: Mr. Yasuo Arakaki
Hercules Construction Co., Inc.
Seaboard Surety Company
bcc: Service Engineer

201-21-0356

July 29, 1982

Windward Partners
436 Piikoi Street
Honolulu, Hawaii 96814

Gentlemen:

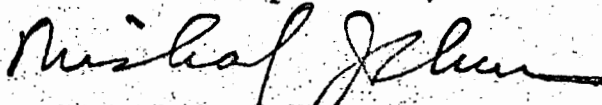
Subject: Waikane Residential Lots
TMK: 4-8-03: 07, 08,
and 09

Grading Permit No. 11 will expire on October 14, 1982.
Please complete the work by this date.

If it is necessary for you to continue grading after the expiration date, please obtain a new grading permit from the Division of Engineering. The following data will be required:

1. Remaining work to be completed, and
2. Schedule of completion for the remaining work.

Me ke aloha pumehana,



MICHAEL J. CHUE
Director and Chief Engineer

JL:gc

bcc: Service Engineer
Project Inspector

501-21-0978

December 4, 1985

Windward Partners
4363B Piikoi Street
Honolulu, Hawaii 96814

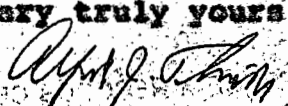
Gentlemen:

Subject: Windward Residential Lots
TMK: 4-8-03: 7, 8 and 9

The work under Grading Permit No. 11 was completed and the permit expired on October 14, 1982. Please have your engineer submit the final soils report and grading certification necessary to close the permit.

The bond filed with the City will remain in effect for a period of one year after our approval.

Very truly yours,


For RUSSELL L. SMITH, JR.
Director and Chief Engineer

~~BTW:lr~~

cc: Hercules Construction Co., Inc.
Mr. Yasuo Arakaki
Seaboard Surety Co.

bcc: Service Engineer